Carbon Sequestration on Surface Mine Lands

Quarterly Report

Reporting Period Start Date: 10/01/05
Reporting period End Date: 12/31/05

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Date Report Issued: May 2, 2006
DOE Award Number: DE-FC26-02NT41624

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ABSTRACT

A major effort this quarter was to inventory all the planted areas to evaluate the diameter and height growth as well as determine survival rates. Soil bulk density and compaction continue to be evaluated on all the areas to determine the effects on tree growth and survival. The hydrologic quantity and quality are continuously monitored and quantified. Much effort was also expended in preparing technical presentations for professional meeting and for the preparation of the final project report.

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INTRODUCTION

EXECUTIVE SUMMARY

The fourth quarter of each year in this and similar research is dedicated to inventory and survival assessment. Annual evaluations are also made to determine the soil density and compaction changes associated with each research area. Such data is necessary to correlate with tree survival and growth. This information is also vital information in the determination of water infiltration rates. While the above activities tend to be seasonal, hydrologic monitoring for quantity and quality are a continuous activity.

This is also the period that is very active for preparation and presentation of research papers for professional societies and associations. The group now had a congressional field trip and gave three presentations at professional meetings.

EXPERIMENTAL

Research as described in previous reports continue and are generating data for analysis which has been the major activity involved by each team member during the third quarter of the calendar year (October, November, December). Results of these analyses will be presented in an annual report that is currently in process.

RESULTS AND DISCUSSION

The analysis and discussion of the research areas will be presented in the annual report presently in preparation.

CONCLUSIONS

No conclusions are presented at this time as data analyses are currently incomplete, yet early indications are that the systems being used result in greatly improved water quality with little or no surface run off and erosion. The growth rates and survival are also greatly enhanced.